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ABSTRACT

The consequences of using a preschool screening program in a public school, especially in relation to the teacher's activities, are examined in this case study. A small, rural New England elementary school served as the field site. Data collection activities included observing two days of the preschool screening clinic, observing the kindergarten for 40 hours over a 5-month period, interviewing the study participants, and interviewing 19 external informants. Analysis of the data isolated eight consequences of using a preschool screening program: (1) community legitimacy of the kindergarten program increased as a result of adopting the complex, externally developed screening program; (2) though initially the teacher was intimidated by the complexity of the program, ultimately her self-confidence was buoyed by the increased legitimacy of the program; (3) curriculum content was highly correlated with screening examination content; (4) the pace, sequence, and quantity of the curriculum that individual children received was often governed by the screening program; (5) the screening program contributed to the valuing of the more measurable educational objectives; (6) the screening program contributed to the valuing of direct instruction more than other available teaching methods; (7) children's and parents' initial impressions of schooling were related to the screening program; (8) the program enabled the school district to meet selected state and federal regulations. (Author/JA)

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A Pre-School Screening Examination and a Public School*

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Background

The uses and consequences of testing in the educational context have long interested educational researchers. One manner in which testing is employed in the educational context is the pre-school screening examination administered in many public schools to entering school children. The purpose of the investigation discussed in this paper was to examine one research question related to test use in schools: What are the consequences of using a pre-school screening program in a public school? The question was examined by studying one case in which a pre-school screening program was used. The study site was a small, rural New England elementary school. This paper highlights the conclusions of the case study (Hutchins, 1980).

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A Framework for the Study

To facilitate the development of an answer to the research question, key issues that are often associated with using tests in schools were stated at the outset of the investigation. The key issues that initially focused this research have been called "foreshadowed problems" (Smith & Pohland, 1974). These foreshadowed problems arose from the historical context of the research problem. Relevant literature, the

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investigator's experiences, and current educational trends were sources that were used to develop the initial problems that might be potentially important at the field site. The investigator anticipated a tension over issues such as ability grouping, school placement, curriculum, socio-economic and cultural factors, and the use of tests and test scores.

During the course of the five months of field work, these foreshadowed problems were examined. Some remained salient issues throughout the study. Others seemed less vital than issues that emerged from observations and interviews at the field site. The full case study (Hutchins, 1980) is a discussion of seven issues related to the research question that remained salient ones at the termination of data gathering. These issues were teaching ability, conformity and legitimacy, curriculum, knowledge and evidence, individualization, specialists and their ways of knowing, and program validity.

From the portrayal of events at the field site that is included in the case study, several specific answers to the research question could be made. These answers are the conclusions of the study that are discussed herein.

The researcher in this study did not particularly focus on parent perceptions, children's school experiences, or school administrative decision making. Any of these foci could have produced a very different case study while answering the same research question and addressing the same educational issues. The sample of perceptions chosen for this study was controlled by the researcher. These perceptions focus the case on the teacher as she participates in events related to the research issues. Other researchers may have chosen an alternative focus, resulting in a variant to this case study.

Research Methodology

This study utilized an eclectic case study research method in a field site. The methodology was designed to describe naturally occurring day-to-day realities (Hamilton, King, MacDonald, Jenkins, & Parlett, 1977). The methodology was chosen from the array of social science research strategies primarily because of its potential for providing descriptive information that would illuminate the educational problem under study.

Site Selection

Perry Elementary School was selected for this study primarily because the conditions that were to be studied were present at the school and the researcher was guaranteed access to data sources and individuals that would be necessary in the investigation. All entering kindergarten children were administered a screening examination during the first week of the school year. The school principal enthusiastically agreed to participate in the research study. Her enthusiasm was, in part, due to an opportunity to re-establish "connections" with the investigator, a former professional colleague. But the main interest in participating was due to the principal's vested interest in the screening program in her school. She was one of the instigators for establishing the program and provided on-going support for the two kindergarten teachers who used the examination.

The school seemed fairly typical of small schools. The elementary school had not been involved in any externally generated research or demonstration efforts during the last five or so years. The researcher anticipated that the study could be carried out with minimal intervention

from outside evaluators or researchers. "Research control" in the true sense of the word was not anticipated. It was predicted that there would be few outside interferences in the school during the study.

Data Collection

Field research procedures derived from procedures used by Smith and Pohland (1977), Smith (1978), and Schatzman and Strauss (1973) were used for this research. Several data collection activities took place.

1) During the first week of the school year, the researcher attended two days of the pre-school screening clinic. The researcher "passively" observed the testing of children, parent activities, and teacher/tested meetings associated with the week-long clinic.

2) A total of approximately 40 hours of kindergarten observation took place over a five-month period. Daily plans were reviewed by the researcher when beginning a classroom observation. Plans were reviewed to assist the researcher in anticipating the flow of events while observing in the classroom. Work groups that were organized or planned by the teacher were recorded when the grouping occurred. The children who were in the group and the content of the work that the children engaged in was recorded for each classroom observation. Activities (e.g., materials used by the children, teacher-initiated games and lessons, and resources made available to children) were noted for each classroom observation session. Anecdotal accounts of particular activities or events that occurred in the classroom observation period were narratively recorded.

Direct quotes were recorded whenever possible. These accounts were used by the researcher to provide a concrete example for subsequent query of teachers, principal, extternal informants, parents, and others interviewed for this study. A selection from the anecdotal accounts served as "vignettes" that were used in interviews conducted for the study.

3) Interviews, structured in advance by the researcher, were conducted with most of the study participants. Interview protocols, consisting of four or five open-ended questions, were used to structure the interviews with parents, teacher, school principal, specialists, school superintendent, and external informants. Whenever possible, a vignette of an actual observed event, statement, or interaction was presented to the respondent. The purpose of presenting vignettes was to structure the discussion around the issues of the particular case under study and to provide a concrete example to illustrate the context from which the question arose.

4) Nineteen external informants were interviewed during the course of the study. Interviews ranged from 15 minutes to over one hour in duration. None of the respondents knew the location of the research field site. The external informants were as follows:

—two school superintendents

—four kindergarten teachers

—two school principals

—three educational evaluators

—six education graduate students

—two professors of education

All interviews were conducted by the researcher. Several actual occurrences from the field site ("vignettes") were verbally recounted by the

researcher, and the respondent was asked to speculate why the event might have occurred and what consequences the event might bring about.

Data Analysis

Taped interviews were transcribed by the researcher. Each interview was then analyzed for the purpose of organizing segments of interviews that related to particular issues. Interview segments are included as primary source material in the case study.

Lenghty classroom observation records were maintained. These were reviewed and analyzed to detect patterns of events that emerged over the course of the research. For example, by reviewing the classroom observations, it was possible to deduce that the teacher grouped children together by alphabetical listing each day. Trends or patterns were discussed with the teacher in an interview, then included as evidence for the case study.

Records of individual children and families were analyzed by the school secretary to ascertain SES (socio-economic status) of the sample children. Notes of this document review were maintained as field notes.

Issues were reviewed by the researcher once a month. The monthly reviews were for the purpose of re-evaluating the issues under study. The researcher read the re-read notes, observations, and interview transcripts to decide (a) whether or not the issues remained relevant to the context and question under study; (b) if more information gathering was necessary, and if so, how and what type of information would be appropriate; or (3) whether or not the issue should be re-cast to more accurately reflect its reality in the setting in which it was being studied. "Foreshadowed problems" were re-evaluated. New issues or

derivations of the old ones were added to the list of issues. And, the data was re-organized to reflect the issues that were played out in the authentic setting under study.

Reporting

Data collection and analysis culminated in the writing of a case study, the report of the results.

The case study was reviewed by the school principal and a kindergarten teacher aide. After reading the study, the researcher was asked by the principal to develop a synopsis of the study for the kindergarten teacher. This request evolved from the principal's concern that presenting the complete case study to the teacher would be irreparably damaging to the teacher's self-confidence in her teaching role. Although the original research plan included teacher comments about the study as an internal validity check, the teacher's review was abandoned on the advice of the principal. The two participants who reviewed the case study made no suggestions for changes. Rather, they agreed with the researcher's portrayal and conclusions and judged the case study as "accurate" and "perceptive."

What Are the Consequences of Using a Pre-school Screening Program in a Public School?

This study isolated eight consequences of using a pre-school screening program in a public school.

1) The teacher's self-confidence in her ability to perform her teaching role was related to the screening program. Strategies (the

pre-school screening program) affected Merry's (the teacher) self-confidence in two conflicting ways. First, Merry was intimidated by the screening program that required a total overhauling of her curriculum and instruction. She worried aloud that she would not be able to implement the program as the program trainer had specified it should be used. She doubted that she knew enough about teaching techniques to make the transition to the new and technical program. She was willing to try, intent on assuaging her desire for work stimulation and the principals request for more individual programming in the kindergarten. Yet the program required adopting viewpoints and teaching methods other than her own. The novelty and program complexity seemed to force Merry to doubt her capacity to fulfull her job role.

On the other hand, the legitimacy that the screening program had with influential people seemed to buoy Merry's perception of her ability to perform the teaching role. Although the program frustrated the teaching designs that had previously served her well, the trade-off of more legitimacy with peers, parents, and superiors seemed worth the efforts. The test challenged Merry's beliefs in relation to such educatinal issues as group instruction, total group expectations, and objectives to an often painful degree. But the benefits of the program, including the stature she would gain in the eyes of others, counterbalanced its unpleasant effects. In this sense, the screening program extended Merry's self-confidence as a teacher.

2) <u>The community legitimacy of the kindergarten program was related to using the screening program</u>. Educators often advocate a "play-oriented" kindergarten. Yet societal expectations for schooling rarely accommodate the viewpoint of play as a legitimate goal or

means of education. Perry Elementary's use of a relatively sophisticated instructional technology, such as a diagnostic-prescriptive screening program, assisted in closing the gap between professional and lay expectations for schooling.

The confluence need not have resulted from the program's philosophy. "Learning centers," focused on games and child-manipulated activities, could have, in a selective and a limited way, utilized children's play as a means for school achievement. Instead, the program's philosophy naturally led Merry to a rigorous and tightly controlled instructional approach.

This reaction may reflect the school's desire to mirror community attitudes (e.g., school is not for play and teachers should teach). The screening program focused on a set of discrete and measurable activities that, although potentially undertaken by children through relatively unsupervised play, were transformed into work that was guided by the teacher. In the transition, the business of kindergarten becomes more legitimate within the community as was the role of kindergarten teacher.

Perry families, teachers, and school administrators take pride in their schools. Kindergarten is considered to be as rigorous and challenging as the other school grades. The community expects school to provide different experiences than children might have at home or in a pre-school. Packaged programs and technical teaching strategies are commonly accepted as what schools are about. By adopting a complex, externally developed, packaged program in the kindergarten, Perry Elementary was conforming to community perceptions of their school.

3. Curriculum content was highly correlated with screening examination content. This was a function of the program design. One might question the ethics of "teaching to the test" when discussing a norm-referenced instrument, as Merry did in her comments to the researcher about the relationship of the Metropolitan Readiness Test to the kindergarten program. Teaching ethics are not at issue, however, when using criterion-referenced tests. The consequence in this case seems more closely related to the screening test's impact on what should be taught in kindergarten. For example, test items became an integral part of the curriculum. This transfer was accomplished without regard for the relationship of the test content to any professional or societal standards or previously used kindergarten curriculum programs. The test translated into a curriculum that may or may not be compatible, appropriate, relevant, valid, ideologically unbiased or culture free, all common issues in American school curriculum. We do not know and it did not seem to matter.

While Merry and other Perry staff suspected the validity of the screening test, no one seemed to question that the curriculum that followed upon the initial screening was a good one for the kindergarten. No one asked whether or not the program was appropriate for Perry children, duplicative of other activities that Merry offered, developmentally appropriate, or consonant with the later grade curriculum. The test content and follow-up activities forced only a superficial examination of the bases for curriculum while significantly impacting on what was offered in the kindergarten program.

4. The pace, sequence, and quantity of the curriculum that individual children received was often governed by the screening program.

"Units of instruction" were designed within a framework dictated by the screening program. The pace of instruction followed from the speed with which each child mastered the test items. The sequence of curriculum was fixed by the hierarchically arranged skills progression. The quantity of curriculum was dictated by the cumulative mastery levels that each child attained over the course of the year. This control of curriculum occurred during approximately 1/3 of each kindergarten session. (Other portions of the day were spent in activities that were not directly related to the screening program. See Hutchins, 1980).

An ancillary finding that is entailed in the program's control over instruction is a relationship between social class and school opportunity. Differential educational opportunities for children of different classes were observed. Children of lower-income families started behind and stayed behind in the screening test-related developmental curriculum area. They never caught up to their higher income classmates. The net effect was more involved and challenging activities for higher-income children and lesser work for lower-income children. Given the questions raised earlier in this thesis about the screening test's validity, one must also question that the bases for subtle class segregation were well founded.

5. The screening program contributed to the valuing of the more measurable educational objectives. It is not an uncommon assumption that some educational objectives are more measurable than others. For instance, the national evaluation of "affective-cognitive" elementary education models in Project Follow Through found no reliable or valid measurement strategy for assessing educational impact for the models' elusive goals such as "self-awareness as a learner" or self-esteem

(House, Glass, McLean, & Walker, 1979). Early childhood professionals in particular discredit most attempts to reliably measure young children's behavior and attitudes. Most agree that some behaviors lend themselves to more reliable measurement than others, however.

Pre-school screening tests necessarily focus on the more acceptably measurable domains. Screening tests that are used for diagnosis and follow-up prescription (e.g., Strategies) extend the focus of measurement beyond merely testing. The test items become the program's instructional objectives. The more readily measured characteristics of the child assume importance in curriculum design by virtue of their conspicuous nature. In Perry, the result seemed to be an increased valuing of outcomes that can easily be measured, regardless of educational significance.

Some traditional kindergarten materials were not introduced in Merry's classroom during the course of this study. For example, building blocks, sand table, water play, and assorted art materials were not used. Such activities are usually considered challenging for children's cognitive and conceptual development. They are viewed as particularly appropriate for four- and five-year-olds in group settings. Their outcomes are difficult to identify in measurable terms yet their value in promoting cognitive learning is widely acknowledged. Perhaps the screening program limited kindergarten activities to such an extent that these experiential activities seemed less constructive and too peripheral.

6. The screening program contributed to the valuing of direct instruction more than other available teaching methods. One way of assuring that children succeded on the screening examination was to instruct them directly in the subject matter. Strategies tested skills

that Merry then taught in a one-to-one setting. Although other instructional strategies such as learning centers were options, one-to-one instruction seemed most effective to this teacher given the constraints imposed by the screening test. Direct teaching was the most efficient means to a child's advancement through the curriculum.

Strategies, taken literally, is a demanding program. It assumes that children will progress during one year through an extensive and lengthy skills program. Activities that are keyed to test items often require several class periods, assorted materials, homemade games, and adult intervention. It may require several weeks of involvement in activities for children to correclty master a test item. Ideally, the kindergarten teacher should not be limited by the school calendar and the Strategies skills hierarchy should extend beyond kindergarten into the first grade. But most teachers, including Merry, are limited by the constraints of one school year and feel compelled to achieve at least an approximation of the program objectives by June. The screening program, with its complex, task-analytic approach to learning, may have pressured Merry into using the most direct teaching style that she knew.

7. Children's and parent's initial impressions of schooling were related to the screening program. Perry staff remarked that kindergarten children had more smoothly adjusted to school because of the way the screening examination was administered. The screening examination period set a mood for school. It served as a model of the school context. Children were quietely guided, questioned, and directed. Parents were assembled on the periphery. Generally, these same practices continued throughout the year with regard to children and parents.

8. The Screening program enabled the school district to meet selected state and federal regulations. Although not discussed at length in this thesis, the screening program enabled Perry School District to meet state mandated requirements for pre-school screening. This state law did not specify the extent or content of screening procedures, only that they be employed. Strategies allowed the Perry kindergarten to meet statutory regulations.

Probably closest to the intent of the state's screening mandate was the school's use of the pre-school examination to identify "at risk," "low achieving," "educationally disadvantaged," or "handicapped" children. Low scores on the screening test signalled that the child may be in academic trouble. High scores, although noted and discussed, did not translate directly into a special educational need.

Although not solely for the purpose of early detection of developmental deficiencies or lags, the screening test was sensitive enough to recognize children who possessed a limited set of entry behaviors. The test distinguished those children who were potentially "special needs" children, eligible for appropriate programming under the recent "Education of All Handicapped Children Act," PL 94-142. Children who initially scored in Strategies Level 2, experienced difficulty during the test administration, or showed minimal response to follow-up instruction were referred for a P.E.T. (Pupil Evaluation Team) assessment. This team assessment was the initial step in developing an I.E.P. (Individualized Educational Plan) that would stipulate individualized educational goals for the special child. The test commenced the process that Perry used to comply with state mandates and federal regulations.

One of the controversial tenets of these current regulations relating to education of handicapped children is the provision that a school district is, or at least may be, legally accountable for assuring that every special needs child reaches the educational objectives set forth in an I.E.P. Strategies provided a set of hierarchically arranged performance objectives that were thought to be realistic and achievable within the current capability of Perry's school staff. During my period of observation, two children had undergone a P.E.T. assessment, although no I.E.P. had yet been developed. Staff planned to use the screening program objectives as the basis of the I.E.P.

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